

Electronic Interlocking System Overseas Business Development

Ariyoshi Nakamura

Executive Officer

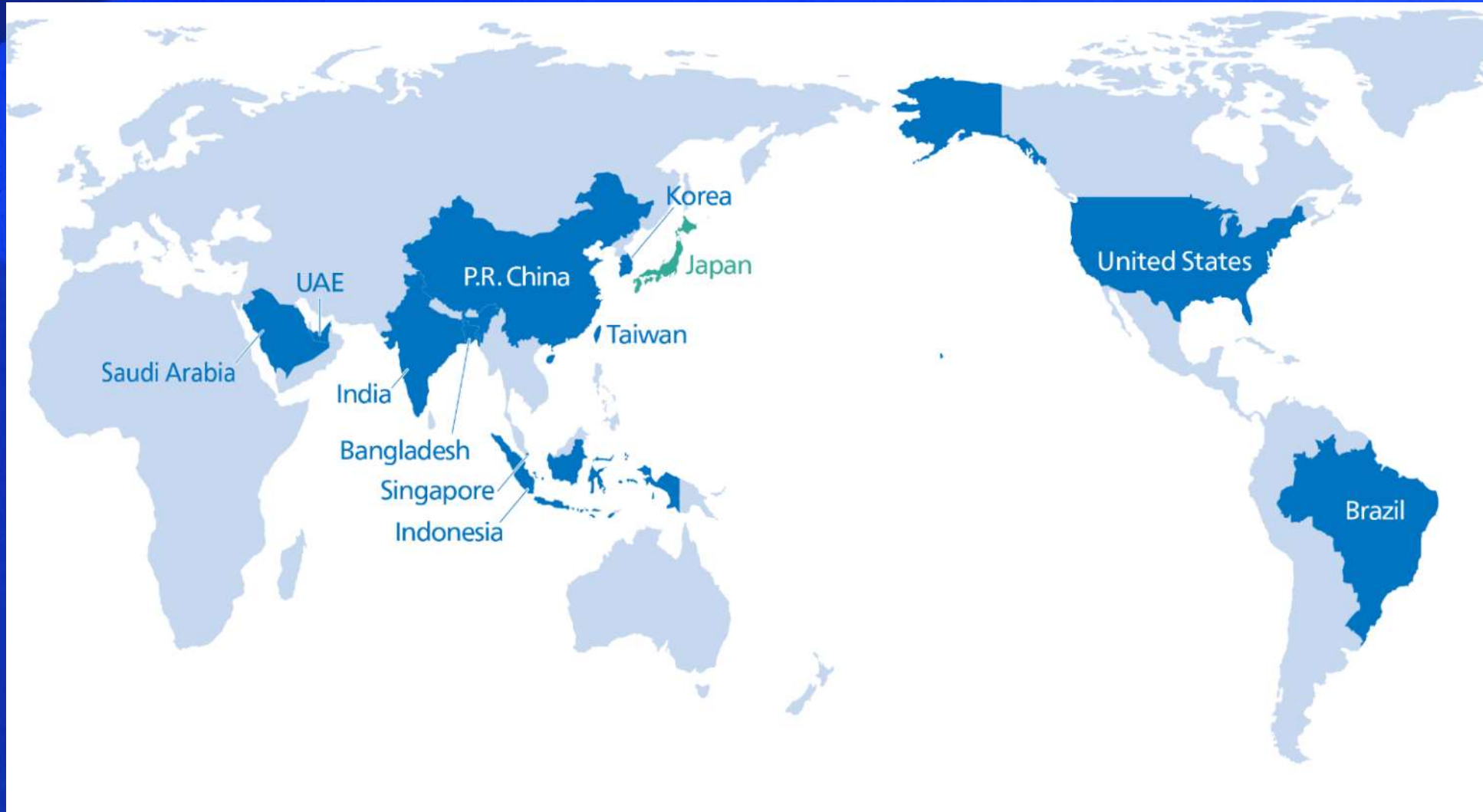
Railway Signal Div., Kyosan Electric Mfg. Co., Ltd.

Introduction

Name	Kyosan Electric Mfg. Co., Ltd.
Foundation	3 rd Sep 1917
Capital	6270.3 million JPY (Consolidated FY2024)
HQ	2-29-1, Heiancho, Tsurumi-Ku, Yokohama, Japan
Location	<ul style="list-style-type: none"> ▪ Headquarter / Flagship Factory : Yokohama ▪ Mechanical Factory : Zama, Kanagawa Pref ▪ Tokyo Sales Office : Shinagawa, Tokyo Met. ▪ Regional Sales Offices : Osaka • Sapporo • Sendai • Nagoya • Hiroshima • Takamatsu • Fukuoka • Taipei • Beijing ▪ Overseas Subsidiaries : India • PRC • Taiwan • US • Poland
Products	Railway Signaling System, Platform Safety Devices, Passenger Information System, Road Signaling System, Power Converter
No of Employee	2,054 (Consolidated as of 31 st Mar 2024)
Web Site	https://www.kyosan.co.jp/

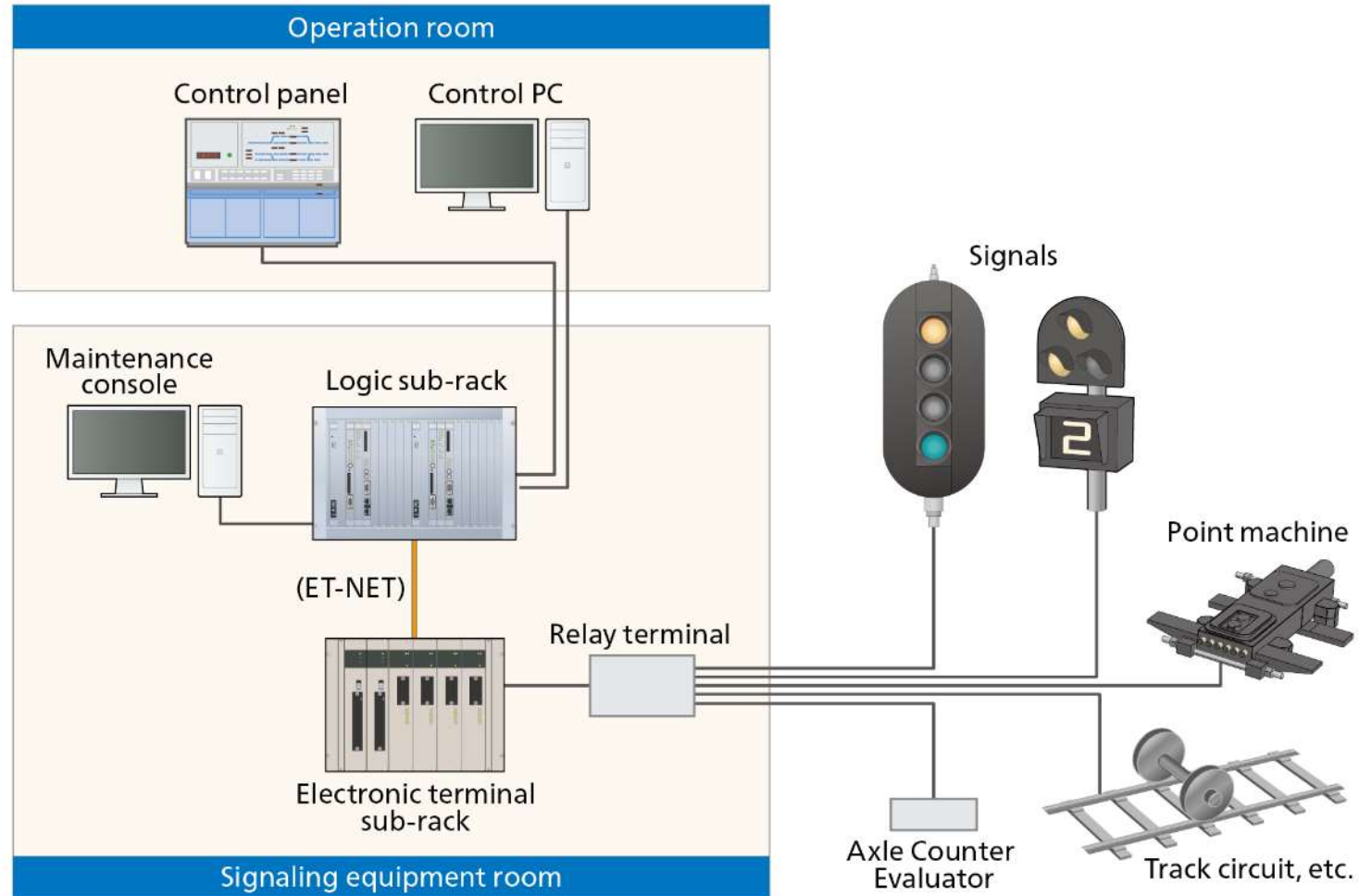


Worldwide Track Record



What is Interlocking System ?

System configuration diagram



India Experiences

Control Console



Logic Terminal Rack



India Experiences



**Award of Pilot Project
in Western Railway (2003)**



**Foundation of Local Subsidiary
Kyosan India Pvt. Ltd. (2013)**

India Experiences

Make in India

Printed Circuit Board Assembly



Wiring Activity of Computer Rack



India Experiences

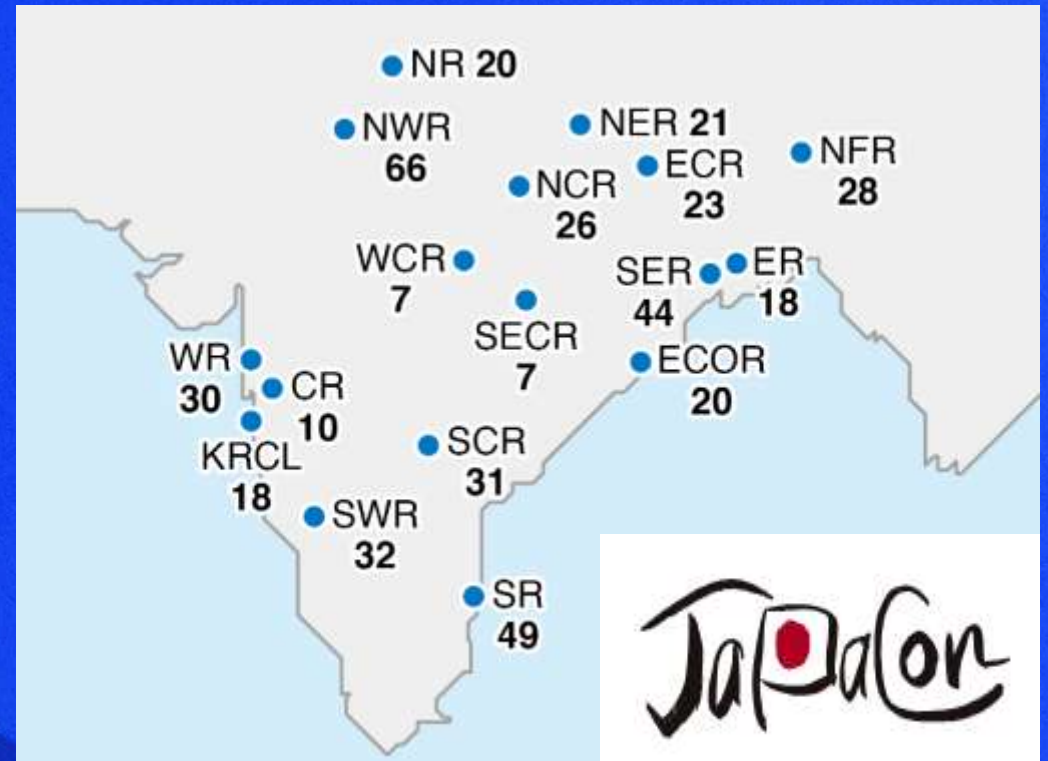
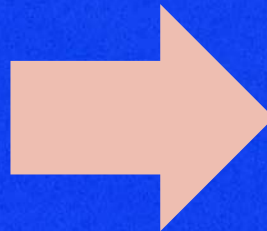
Enhancement of Local Manpower



Software Design Room of our Affiliate Company (TSTS) in Bengaluru, South India

India Experiences

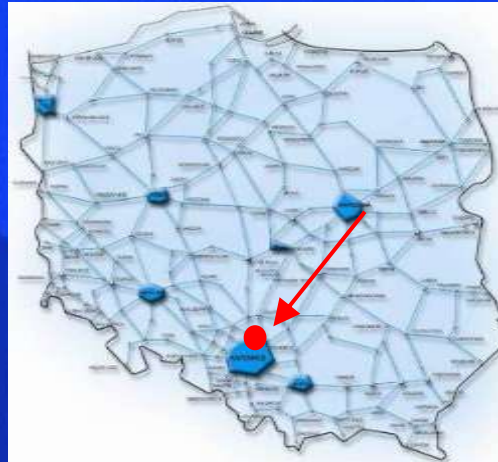
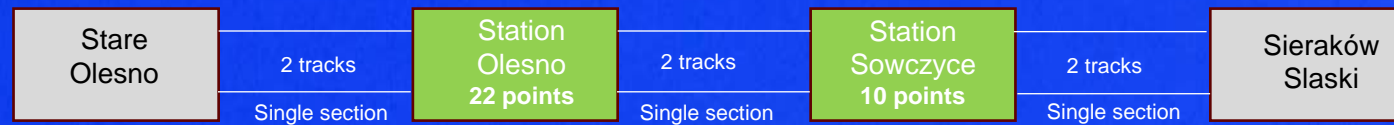
Zonal Railway-wise Number of Stations wherein commissioned
(Evaluation period : April 2017 - March 2022, Total of 450 stations)



Poland Experiences

Award of Pilot Project (September 2024)

Pilot location are stations with normal train operation



Poland Experiences

Scope of Work for Pilot Project

- Elaboration of necessary design documentation and obtaining the necessary permits.
- Delivery of electronic interlocking (K5D) with remote control system (VDU) for Sowczyce and Olesno stations with integrated line block on section Sowczyce – Olesno.
- Delivery of maintenance and diagnostic system (MTC).
- Delivery of Installations and Civil Works, inc.:
 - Construction of signalling containers for indoor equipment,
 - Installation of power supply systems for electronic interlockings,
 - Installation of 2x level crossings (one equipped with Kyosan obstacle detector),
 - Installation of semi-automatic line block (EAP2000/J),
 - Reconstruction of existing cable network and reconfiguration of existing equipment to work with an electronic interlocking and remote control system,
- Conducting trainings for PLK Staff.
- Carrying out operational tests.
- Obtaining the necessary UTK approval certificates.
- Providing warranty services.

Our Products – Railway Signaling

Railway Signaling Solutions

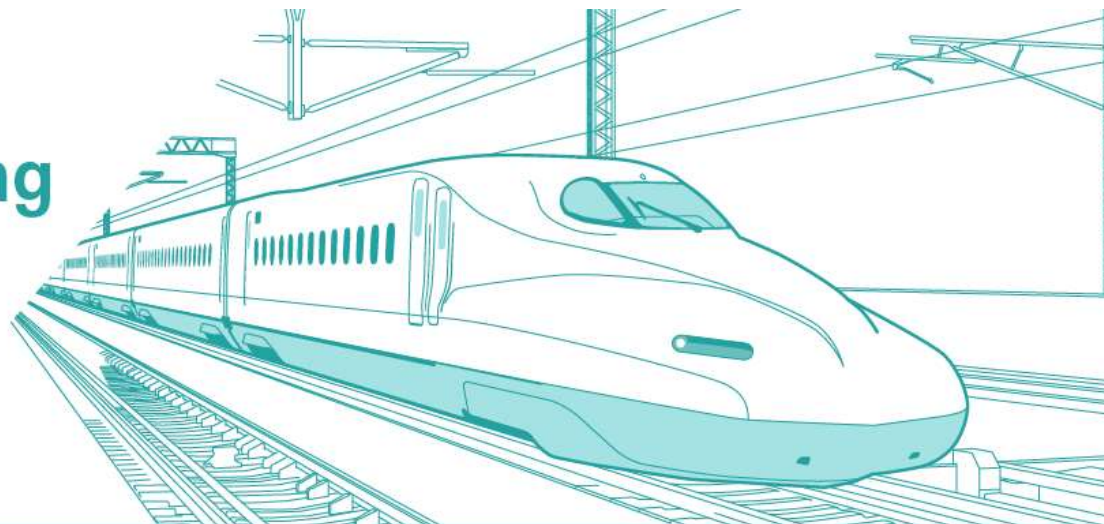
Safety and Stability in Railway Transportation

Railways are infrastructures essential to our lives as mass transit systems, and a high level of safety and reliability is required for railway signaling systems that support railway operations.

In addition, along with globalization, declining birthrates and the graying of societies, there is a growing need for advances in universal design and reductions in infrastructure maintenance costs.

Kyosan has continued to lead in the development and supply of many of Japan's and the world's first products over the years, and our technologies have earned a reputation of trust not only in Japan but in countries around the world.

In the future, we will continue to provide high quality products integrating railway signal know-how that we have cultivated over the years with new technologies.



Automatic Train Control Equipment (ATC) Wayside Equipment



The SINPL-ATC series feature our original anti-noise measures which achieves safety and compact size.

Centralized Electronic Interlocking System



This system controls signals and point machines for multiple stations with a set of interlocking logic subracks.

Total Traffic Control System (TTC)



The TTC system enables efficiency and improved functionality in timetable management, offering on-time train service and detailed updates on operation to passengers.

Automatic Train Stop Device (ATS) Onboard Equipment



Electronic Interlocking and Relay Interlocking Equipment



Electronic Interlocking Equipment Relay Interlocking Equipment

CBTC System (Communications-Based Train Control System)



LED Color Light Signals



Equipment Supervision System



Level Crossing Barrier



Electric Point Machine



Thank you for attention

**For further inquiry, we shall contact you
from Kyosan Japan or Kyosan Europe !**